

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012025**Date Inspected:** 17-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY YARD

ULTRASONIC INSPECTION

American Bridge Fluor (ABF) request number: 02162010-1.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. Rejectable indications were found.

Weld identification numbers were

OBW6A-003, 002 (OBG 6BW/6CW D.P A2&amp;A1)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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For more information refer the ABF/CT report dated on 02/17/2010

### MAGNETIC PARTICLE INSPECTION

#### OBG SEGMENT 6BW- 6CW

This QA Inspector Witnessed ABF personal performing Magnetic particle Testing (MT) on deck panel splice weld between OBG segment 6BW and 6CW weld are identified as OBW6A-003, 002 . American Bridge Fluor (ABF) request number was 02162010-1.

A linear Indication were observed during Magnetic particle testing (MT)

For more information refer the ABF/CT report dated on 02/17/2010

This QA Inspector randomly observed the following work in progress.

#### OBG SEGMENT 6EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070046 performing buttering with Shielded Metal Arc Welding process for strut plate. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F –Repair. Weld repair report identified as B-WR10561.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067665 performing Shielded Metal Arc Welding process for weld SSD18-PP44-148 located on PCMK OBG 6East. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2212-TC-U4-B.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066179 performing Shielded Metal Arc Welding process for weld SSD18-PP46-169 located on PCMK OBG 6East. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2212-TC-U4-B.

#### OBG SEGMENT 6AE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 216086 performing Shielded Metal Arc Welding process for weld CA026-006 located on PCMK weld between edge panel and deck panel (bike path side). ZPMC QC Mr. Zhang Guo Hui monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F) –FCM-Repair-1. Critical weld repair report identified as B-CWR1092.

#### OBG SEGMENT 6AE-6BE

This QA Inspector observed ABF personal performing Magnetic particle Testing (MT) on temporary attachment removed area at the side panel splice weld between OBG segment 6AE and 6BE (cross beam side).

### MAGNETIC PARTICLE INSPECTION

#### OBG SEGMENT 6AW

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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This QA Inspector Witnessed ABF personal performing Magnetic particle Testing (MT) on weld between side panel and bottom panel weld are identified as SEG0278-031. American Bridge Fluor (ABF) request number was 02162010-1.

No relevant indication were observed during MT

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Utekar,Shrikant

Quality Assurance Inspector

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**Reviewed By:** Dawson,Paul

QA Reviewer

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